

REMARKS

Claims 1-20 are pending.

Claims 1 and 11 were amended to be clearer. Specifically, as described throughout the present specification and recited by claim 1 (from which each of claims 2-4, 7-9, 12-17 and 19 depend), through the present invention, the pressure within the hydraulic system is reduced by modifying how the hydraulic circuit operates, specifically by controlling the hydraulic delivery of the feed pump.

New Claim 20 recites the activating step comprises utilizing said pump as a motor and utilizing said motor as a pump. It is respectfully submitted this is disclosed on page 9, lines 5-9.

I. 35 USC § 102

Claims 1-4, 7-9, 12-17 and 19 stand rejected under 35 USC § 102(b) as allegedly being anticipated by Bidon (U.S. Patent No. 4,186,811). The Office action asserts Bidon teaches each feature recited by the rejected claims. In light of the amendment to claim 1, reconsideration is respectfully requested.

According to Bidon, a pressure sensor 145 delivers a voltage proportional to the force of resistance applied to the wheels of the tractor on the part of the tools carried by the vehicle (col. 11, lines 17-21).

The value of the detected force is compared to a value the driver has set in a control device, in this case the potentiometer 150.

If the value given by the pressure sensor 145 is greater than the set value, the control opens of a distributor valve 151 to raise the arms and consequently relieve the resistance force (col. 11, lines 26-30). It is respectfully submitted this is not the presently claimed valve means connected to the detection means and able to modify operation of said hydraulic circuit by acting on at least one command member of the feed pump. The Bidon arms are not part of the hydraulic system. Thus, raising the arms is not a modification of the hydraulic system.

Accordingly, Bidon discloses a control system for a hydraulic circuit in which an operative pressure of a driving fluid is checked and compared to a pre-selected set value; when

the pressure increases over the set value, the control intervenes to remove the reason for the pressure increase (the arms are raised).

Bidon does not disclose directly modifying the operation of the hydraulic circuit itself in response to a detected condition that a set limit value of the fluid pressure in the circuit has been exceeded. Nor does Bidon disclose such a modification of the hydraulic circuit can restore the correct pressure conditions without intervening in the position of the tools of the machine. Bidon teaches to adjust pressure by intervening in the position of the tools of the machine.

Particularly, Bidon neither discloses nor suggests changing the delivery of the pump in response to a detected condition that the pressure in the circuit exceeds a set limit value.

The Examiner's attention is directed to the present specification which further details the above-described distinction. For example, in an embodiment of the present invention the value of the pressure of the oil in the system, such as the delivery pipe 20, is detected by a sensor 32 and compared to a set value in, for example, an electronic processing unit 33 (first embodiment; page 7, lines 28-33). When the measured value exceeds the set limit value, a command signal is delivered to reduce the pressure, by activating a valve (35 in the first embodiment, 37 in the second embodiment) through which a determinate quantity of oil is allowed to enter the chamber 27 to displace the piston 23 to one side, and thus reduce the delivery of the pump 17 (see page 8, lines 10-18 and lines 22-27).

In other words, the system automatically reacts to a detected exceeding of a set limit value of the fluid pressure in the hydraulic circuit by transforming the circuit itself, through which the value of the fluid pressure is returned to being at or under the set limit.

In accordance with one embodiment, as disclosed on page 8, lines 28-33, the reduction of the delivery of the pump reduces the fluid pressure in the pipe 20 and consequently reduces the force of traction exerted by the hydraulic motor 21 on the cable 16. The increase of this force of traction of the cable 16 (page 7, 14-16) had been the reason for the growth of the fluid pressure in the pipe 20.

Thus, as disclosed on page 9, lines 5-9, in connection with that embodiment, and as recited by new claim 20, when the resistance caused by the traction of the cable 16 makes the

pressure in the delivery pipe 20 increase over a set limit value, the intervention to reduce the delivery of the pump makes the pump temporally work as a motor, and the motor as a pump. In fact, in this case, the pump, due to the progressive reduction of its delivery, draws the thermal motor 12 when the hydraulic motor 21 is mechanically drawn backwards by the reel 15 by the traction from the weight of the cable 16.

Bidon neither discloses nor suggests such features.

II. 35 USC § 103

Claim 5 is rejected under 35 USC § 103(a), as allegedly being unpatentable over Bidon, in view of Bowers (U.S. Patent No. 6,200,176).

Claims 6 and 10 stand rejected under 35 USC § 103(a), as allegedly being unpatentable over Bidon in view of Dantlegraber et al. (U.S. Patent No. 5,613,361).

However, as neither Dantlegraber et al. nor Bowers cure the deficiencies of Bidon as discussed above, reconsideration of these rejections is respectfully requested.

Method Claims 11 and 18 stand rejected under 35 USC § 103(a), as allegedly being unpatentable over Bidon. It is respectfully submitted these amended claims distinguish over Bidon as does Claim 1. As explained above, Bidon does not activate valve means to modify operation of a hydraulic circuit by acting on at least one command member of a feed pump to control hydraulic delivery of the feed pump to reduce the feed pump's hydraulic delivery of oil to the motor in the event a pressure detected exceeds a pre-determined threshold value.

III. Conclusion

In view of the above, it is respectfully submitted that all objections and rejections are overcome. Thus, a Notice of Allowance is respectfully requested. If any additional fee is necessary to make this paper timely and/or complete, it may be charged to the undersigned's deposit account number 19-4375.

AMENDMENT

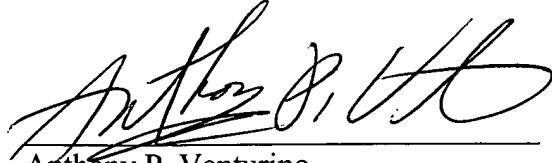
U.S. Appl. No. 10/691,699

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If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Date: March 30, 2005

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